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In The Claims

Please amend the claims as follows:

2. (Amended) The system of claim 1, wherein the double talk detecting unit comprises:

a double talk detecting lattice prediction unit receiving a near end signal in which the near end talker signal is compounded with the echo signal as an input signal and computing a reflection coefficient variation which indicates a characteristic of a sound signal;

a threshold value determining lattice prediction unit receiving the near end signal and estimating a reflection coefficient variation with respect to the far end signal using the reflection coefficient variation of the sound signal, thereby computing a threshold value for the double talk detection; and

a double talk determining unit receiving and comparing output signals from the double talk detecting and threshold value determining lattice prediction units and accordingly determining the double talk state.

3. (Amended) The system of claim 2, wherein the reflection coefficient variation of the input signal is computed by an equation

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$$D_x(n) = \frac{\sum_{i=1}^T [k_i(n) - k_i(n-T)]^2}{\sum_{i=1}^T [k_i(n)]^2} \times 100$$

wherein T is a degree in which there is a reflection coefficient having an effective value in the lattice prediction unit comprised of pth degree, K is a parameter indicating the characteristic of the voice signal, K_i(n) is a reflection coefficient in a discrete time n and K_i(n-T) is a reflection coefficient from a time n to a sample T.

5. (Amended) The system of claim 4, wherein γ is larger than 1 and is set up considering an echo signal-to-noise ratio.

6. (Amended) A double talk detector of an acoustic echo control system, the double talk detector comprising:

a double talk detecting lattice prediction unit receiving a near end signal in which a near end talker signal is compounded with an echo signal according to a far end signal from a far end talker as an input signal and computing a reflection coefficient variation which indicates a characteristic of a sound signal;

a threshold value determining lattice prediction unit receiving the near end signal and estimating a reflection coefficient variation with respect to the far end signal using the reflection coefficient variation of the sound signal, thereby computing a threshold value for the double talk detection; and

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a double talk determining unit receiving and comparing output signals from the double talk detecting and threshold value determining lattice prediction units and accordingly determining a double talk state.

Please add the following claims:

--9. (NEW) The double talk detector of claim 6, wherein the threshold value is computed by an equation: $D_{th}(n) = \gamma \times \max \{D_x(n-C), D_x[n-(C+1)], \dots, D_x(n-M)\}$, wherein γ is a constant, C is a value which time delay due to a direct path of the echo path is considered and M is a range of a previous value which is under consideration for effects of an indoor space.

10. (NEW) The double talk detector of claim 9, wherein γ is larger than 1 and is set up considering an echo signal-to-noise ratio.

11. (NEW) An acoustic echo control method, comprising:
estimating, by an adaptive echo remover, an echo signal which corresponds to a far end signal from a far end talker and generating the estimated echo signal;

detecting, by a double talk detecting unit, a double talk state in accordance with a near end talker signal, the far end signal and the echo signal thereof; and

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suspending an operation of the adaptive echo remover in the double talk state in accordance with an output signal from the double talk detecting unit.

12. (NEW) The method of claim 11, wherein the double talk detecting step comprises:

receiving a near end signal in which the near end talker signal is compounded with the echo signal as an input signal; and
computing a reflection coefficient variation which indicates a characteristic of a sound signal.

13. (NEW) The method of claim 12, wherein the double talk detecting step further comprises:

receiving the near end signal and estimating a reflection coefficient variation with respect to the far end signal using the computed reflection coefficient variation of the sound signal, thereby computing a threshold value for the double talk detection.

14. (NEW) The method of claim 13, wherein the double talk detecting step further comprises:

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receiving and comparing output signals from the computing steps and accordingly determining the double talk state.

15. (NEW) The method of claim 11, wherein the threshold value is computed by an equation: $D_m(n) = \gamma \times \max \{D_x(n-C), D_x[n-(C+1)], \dots, D_x(n-M)\}$, wherein γ is a constant, C is a value which time delay due to a direct path of the echo path is considered and M is a range of a previous value which is under consideration for effects of an indoor space.

16. (NEW) The method of claim 15, wherein γ is larger than 1 and is set up considering an echo signal-to-noise ratio.--